What is claimed is:

1. A method of promoting regeneration or survival of dopaminergic neurons in a mammal displaying signs or symptoms of dopaminergic neuronal degeneration, comprising administering to the mammal a therapeutically effective amount of an NgR1 antagonist.

2. The method of claim 1, wherein the NgR1 antagonist is administered directly into the central nervous system.

3. The method of claim 2, wherein the NgR1 antagonist is administered directly into the substantia nigra or the striatum.

4. The method of claim 2, wherein the NgR1 antagonist is administered by bolus injection or chronic infusion.

5. The method of claim 1, wherein the NgR1 antagonist comprises a soluble form of a mammalian NgR1.

6. The method of claim 5, wherein the soluble form of a mammalian NgR1: (a) comprises amino acids 26 to 310 of human NgR1 (SEQ ID NO: 3) with up to ten conservative amino acid substitutions; and (b) lacks (i) a functional transmembrane domain, and (ii) a functional signal peptide.

7. The method of claim 5, wherein the soluble form of a mammalian NgR1: (a) comprises amino acids 26 to 344 of human NgR1 (SEQ ID NO: 4) with up to ten conservative amino acid substitutions; and (b) lacks (i) a functional transmembrane domain, and (ii) a functional signal peptide.

8. The method of claim 5, wherein the soluble form of a mammalian NgR1: (a) comprises amino acids 27 to 310 of rat NgR1 (SEQ ID NO: 5) with up to ten conservative amino acid substitutions; and (b) lacks (i) a functional transmembrane domain, and (ii) a functional signal peptide.

9. The method of claim 5, wherein the soluble form of a mammalian NgR1: (a) comprises amino acids 27 to 344 of rat NgR1 (SEQ ID NO: 6) with up to ten conservative amino acid substitutions; and (b) lacks (i) a functional transmembrane domain, and (ii) a functional signal peptide.

10. The method of claim 5, wherein the soluble form of a mammalian NgR1 further comprises a fusion moiety.

11. The method of claim 10, wherein the fusion moiety is an immunoglobulin moiety.

12. The method of claim 11, wherein the immunoglobulin moiety is an Fc moiety.

13. The method of claim 1, wherein the NgR1 antagonist comprises an antibody or antigen-binding fragment thereof that binds to a mammalian NgR1.

14. The method of claim 13, wherein the antibody is selected from the group consisting of a polyclonal antibody, a monoclonal antibody, a Fab fragment, a Fab' fragment, a $F(ab')_2$ fragment, an Fv fragment, an Fd fragment, a diabody, and a single-chain antibody.

15. The method of claim 13, wherein the antibody or antigen-binding fragment thereof binds to an polypeptide bound by a monoclonal antibody produced by a hybridoma selected from the group consisting of: HB 7E11 (ATCC® accession No. PTA-4587), HB 1H2 (ATCC® accession No. PTA-4584), HB 3G5 (ATCC® accession No. PTA-4586), HB 5B10 (ATCC® accession No. PTA-4588) and HB 2F7 (ATCC® accession No. PTA-4585).

16. The method of claim 15, wherein said monoclonal antibody is produced by the HB 7E11 hybridoma.

17. The method of claim 16, wherein the polypeptide comprises an amino acid sequence selected from the group consisting of: AAAFGLTLLEQLDLSDNAQLR (SEQ

ID NO: 7); LDLSDNAQLR (SEQ ID NO: 8); LDLSDDAELR (SEQ ID NO: 9); LDLASDNAQLR (SEQ ID NO: 10); LDLASDDAELR (SEQ ID NO: 11); LDALSDNAQLR (SEQ ID NO: 12); LDALSDDAELR (SEQ ID NO: 13); LDLSSDNAQLR (SEQ ID NO: 14); LDLSSDEAELR (SEQ ID NO: 15); DNAQLRVVDPTT (SEQ ID NO: 16); DNAQLR (SEQ ID NO: 17); ADLSDNAQLRVVDPTT (SEQ ID NO: 18); LALSDNAQLRVVDPTT (SEQ ID NO: 19); LDLSDNAALRVVDPTT (SEQ ID NO: 20); LDLSDNAQLHVVDPTT (SEQ ID NO: 21); and LDLSDNAQLAVVDPTT (SEQ ID NO: 22).

18. The method of claim 16, wherein the polypeptide consists of an amino acid sequence selected from the group consisting of: AAAFGLTLLEQLDLSDNAQLR (SEQ ID NO: 7); LDLSDNAQLR (SEQ ID NO: 8); LDLSDDAELR (SEQ ID NO: 9); LDLASDNAQLR (SEQ ID NO: 10); LDLASDDAELR (SEQ ID NO: 11); LDALSDNAQLR (SEQ ID NO: 12); LDALSDDAELR (SEQ ID NO: 13); LDLSSDNAQLR (SEQ ID NO: 14); LDLSSDEAELR (SEQ ID NO: 15); DNAQLRVVDPTT (SEQ ID NO: 16); DNAQLR (SEQ ID NO: 17); ADLSDNAQLRVVDPTT (SEQ ID NO: 18); LALSDNAQLRVVDPTT (SEQ ID NO: 19); LDLSDNAALRVVDPTT (SEQ ID NO: 20); LDLSDNAQLHVVDPTT (SEQ ID NO: 21); and LDLSDNAQLAVVDPTT (SEQ ID NO: 22).

19. The method of claim 1, wherein the therapeutically effective amount is from 0.001 mg/kg to 10 mg/kg.

20. The method of claim 19, wherein the therapeutically effective amount is from 0.01 mg/kg to 1.0 mg/kg.

21. The method of claim 20, wherein the therapeutically effective amount is from 0.05 mg/kg to 0.5 mg/kg.

22. A method of claim 1, wherein the dopaminergic neuronal degeneration is associated with a disease or disorder selected from the group consisting of Parkinson's disease, multiple system atrophy, striatonigral degeneration, olivopontocerebellar atrophy,

Shy-Drager syndrome, motor neuron disease with parkinsonian features, Lewy body dementia, progressive supranuclear palsy, cortical-basal ganglionic degeneration, frontotemporal dementia, Alzheimer's disease with parkinsonism, Wilson disease, Hallervorden-Spatz disease, Chediak-Hagashi disease, SCA-3 spinocerebellar ataxia, X-linked dystonia-parkinsonism (DYT3), Huntington's disease (Westphal variant), prion disease, vascular parkinsonism, cerebral palsy, repeated head trauma, postencephalitic parkinsonism and neurosyphilis.

23. A method of treating Parkinson's disease, comprising administering to the mammal a therapeutically effective amount of an NgR1 antagonist.